

REMARKS

The Office Action of May 14, 2007 and the references cited therein have been carefully considered.

In this Amendment the claims have been amended to correct noted informalities and to more clearly define the invention. More specifically, claim 1 has been amended to more specifically define the relationship between the various parts of the injection head according to the invention, claim 28 has been cancelled, and a new claim 39 dependent on claim 26 has been added to specifically define the illustrated embodiment of the invention.

Reconsideration of the rejection of claims 21, 26, 27, 29-32, 34 and 35 under 35 U.S.C. 103(a) as being unpatentable over the patent to Pinney in view of the patent to Hynes is respectfully requested. In urging this ground of rejection, the Examiner has taken the position that the Pinney patent essentially discloses all of the features recited in the rejected claims except the for the actuator connected to the housing; that the Hynes patent teaches such an actuator connected to the housing of a valve; and that consequently, it would be obvious to provide the valve of Pinney with an actuator as disclosed by Hynes and thus arrive at applicants claimed invention. It is submitted that this conclusion clearly does not apply to independent claim 21 as now amended or the claims dependent there from.

Claim 21 as now amended more specifically defines the structure of the claimed spindle. More specifically, claim 21 now recites that the spindle has a respective larger diameter portion at each end, with each larger diameter portion forming a seal with the wall of the chamber in the housing. Moreover, claim 21 now recites the relative positions of the two larger diameter end portions when in the injection and employed positions. These limitations are nowhere found in the Pinney patent.

According to the Pinney patent, only one end of the valve stem (spindle) is provided with a larger diameter portion or gate 22, while the other end is provided with a smaller diameter plug 15, 13, 21. Thus there is no enclosed space between larger diameter portions as like wise defined in independent claim 21. Rather Pinney teaches openings at the top and bottom of the valve stem that communicate via a space within the valve stem. As a result of the different structural relationships between the spindle or

valve stem of the present invention and that of Pinney, the remaining positioning of the two larger DIAMETER PORTIONS as likewise defined in claim 21 are not found in the Pinney patent. Accordingly, for these reasons claim 21 is clearly allowable over the Pinney patent under 35 U.S.C. 103. As indicated above the Hynes patent was cited simply to show that it was well known to mount a solenoid actuator on a valve housing. However, the Hynes patent does not overcome the deficiencies of the Pinney patent as discussed above. Accordingly it is submitted that claim 21 and claims 26-32, 34 and 35 dependent thereon are likewise allowable over the combination of the Pinney and Hynes patents under 35 U.S.C. 103.

Claims 22-25, 33, and 36-38 are all rejected under 35 U.S.C. 103 over the combination of the Pinney and Hynes patents in view of additional patents to Gaubetz, Eberhart, Barber or Stoss, which were cited simply to show some of the secondary features recited in these claims. However none of these additional references overcomes the deficiencies of the basic combination of references. Accordingly, it is likewise submitted that these claims are allowable over the various combinations of references for at least the same reasons as discussed above with regard to claim 21.

Newly submitted claim 39 is dependent on claim 21 via claim 26 and even more specifically defines the relationships of the various parts of the injection head according to the invention, which relationships are not found in the cited combination of references. Therefore, for this reason, in addition to those discussed above with regard to claim 21, it is submitted that claim 39 is allowable over any combination of the cited references.

In view of the above amendments and for the above stated reasons, it is submitted that each of claims 21-27 and 29-39 are allowable over the prior art of record and are in condition for allowance. Such action and the passing of this application to issue are therefore respectfully requested.

If the Examiner is of the opinion that the prosecution of the Application would be advanced by a personal interview, the Examiner is invited to telephone the undersigned counsel to arrange for such an interview.

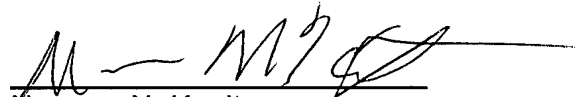
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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Norman N. Kunitz', is written over a horizontal line.

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